IN THE CLAIMS:

1. (Currently Amended) A method for fabrication a semiconductor device, comprising ~~the steps of~~:

forming a barrier conductor layer on a substrate;

exposing said barrier conductor layer to a first gas atmosphere containing a reducing gas and free of plasma at an elevated substrate temperature;

forming, after said ~~step of~~ exposing said barrier conductor layer to said first gas atmosphere, a metal film on said barrier conductor layer by a CVD process; and

exposing said metal film to a second gas atmosphere at an elevated substrate temperature.

2. (Original) A method as claimed in claim 1, wherein said first reducing gas atmosphere is selected from any of the group consisting of silane, ammonia and hydrogen.

3. (Currently Amended) A method as claimed in claim 1, wherein said ~~step of~~ exposing said barrier conductor layer to said first reducing gas atmosphere is conducted at a temperature ~~of~~ between 250°C [[-]] and 500°C.

4. (Previously Presented) A method as claimed in claim 1, wherein said second gas atmosphere includes hydrogen and/or nitrogen.

5. (Currently Amended) A method as claimed in claim 1, wherein said step of exposing said metal film to said second gas atmosphere is conducted at a temperature ~~of~~ between 250°C [[-]] and 500°C.

6. (Original) A method as claimed in claim 1, wherein said metal film is a Cu film.

7. (Original) A method as claimed in claim 1, wherein said barrier conductor layer is formed of any of Ta or TaN.

8. (Currently Amended) A method of fabricating a semiconductor device, comprising:

forming a barrier conductor layer of any of tungsten nitride or tantalum nitride on a substrate;

exposing said barrier conductor layer to an atmosphere of a reducing gas free from plasma at an elevated temperature; and

forming, after ~~said step of~~ exposing said barrier conductor layer to said ~~plasma~~ atmosphere of the reducing gas free from plasma, a metal film on said barrier conductor layer by a CVD process.

9. (Original) A method as claimed in claim 8, wherein said reducing gas is hydrogen.

10. (Canceled)

11. (Previously Presented) A method as claimed in claim 8, further comprising, after said step of forming said metal film, a thermal annealing process applied to said metal film.

12. (Original) A method as claimed in claim 11, wherein said thermal annealing process is conducted at a temperature of 250-500°C.

13. (Original) A method as claimed in claim 8, wherein said metal film is formed of Cu.

14. (Previously Presented) A method of fabricating a semiconductor device, comprising:

alternately and repeatedly forming, on a substrate, an insulating film, a barrier conductor layer of any of tungsten nitride and tantalum nitride, and a metal film, said metal film being formed by a CVD process,

wherein a step of exposing said barrier conductor film to an atmosphere of a reducing gas free from plasma at an elevated temperature is interposed between said step of forming said barrier conductor layer and said step of forming said metal film.

15. (Previously Presented) A method as claimed in claim 1, wherein said step of forming said barrier conductor layer is conducted by a PVD process.

16. (Previously Presented) A method as claimed in claim 1, wherein said second reducing gas atmosphere includes nitrogen.

17. (Previously Presented) A method as claimed in claim 5, wherein said step of exposing said metal film to said second gas atmosphere is conducted under a pressure of about 40 Pa.